

ABSTRACT OF THE DISCLOSURE

Disclosed is herein an optical switch, which has advantages of an MEMS optical switch and a waveguide optical switch including a small electric power consumption, an easy packaging process, and a fast switching speed. The optical switch includes an input waveguide connected to an input optical fiber through which an optical signal is inputted, and a plurality of output waveguides connected to a plurality of output optical fibers through which the optical signal is outputted. An actuator is positioned between the input waveguide and the output waveguides, and has an MEMS structure including a fixed part and a moving part connected to the fixed part by a spring to move by a predetermined force. Additionally, a plurality of moving waveguides are assembled with the moving part of the actuator and move in the same direction as the movement of the moving part in such a way that first ends of the moving waveguides correspond in position to the input waveguide, and second ends of the moving waveguides correspond in position to the output waveguides.